



National Transportation Safety Board

Introduction: General Aviation (GA) Safety Alerts

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★ In-Cockpit NEXRAD Mosaic Imagery ★

Actual Age of NEXRAD Data Can Differ Significantly

The problem

- Weather radar data is available (FIS-B) and private
- A mosaic image on the cockpit display provides new information to the pilot
- The age indicator shows the age of the data, but instead, the age of the service provider, which can be older than the age of the data
- Due to latencies from the ground station, mosaic-creation can significantly delay the data
- Although such a delay can EXCEED the time to detect and avoid
- Even small time delays can be hazardous, quickly

¹ Actual maximum age difference



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★ Meteorological Evaluation Towers ★

Pilots urged to be vigilant for Meteorological Evaluation Towers

The Problem

- Meteorological Evaluation Towers (METs) are used to measure wind speed and direction during the development of wind energy conversion facilities. METs are made from galvanized tubing (or other galvanized structure) with a diameter of 6 to 8 inches and are secured with guy wires that connect at multiple heights on the MET and anchor on the ground.
- Many METs fall just below the 200-foot Federal Aviation Administration (FAA) threshold for obstruction markings. They can also be erected quickly and without notice to the local aviation community, depending upon their location.
- Because of their size and color, pilots have reported difficulty seeing METs from the air. Therefore, METs could interfere with low-flying aircraft operations, including those involving helicopter emergency medical services, law enforcement, animal damage control, fire and wildlife, agriculture, and aerial fire suppression.
- The NTSB has investigated several fatal accidents involving aircraft collisions with METs:
 - On January 10, 2011, a Rockwell International 5-20, N4077X, collided with a MET during an aerial application in Colley, California.
 - On May 19, 2005, an Air Tractor AT-402, N60172, collided with a MET that was erected 15 days before the accident in Ralls, Texas.
 - On December 15, 2003, an Embraer EMB-145, N445SW, collided with a MET near Vanaple, Oregon.
- While Wyoming and South Dakota have implemented requirements for METs to improve the safety of low-flying aircraft, not all states have such requirements for METs. (Wyoming maintains an online database of METs and requires all METs to be registered and marked so that they are visible from a distance of 2,000 feet. South Dakota requires that METs be marked.)

Safety Alerts

- GA on NTSB Most Wanted List
- Need to reduce GA accident rate
- Forum: Education, training, and risk management skills

Safety Alerts

- Define a GA safety problem
- Provide statistics on the problem
- Provide examples of accidents
- Provide ways to prevent accidents

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Safety Alert Topics

- Aerodynamic stalls at low altitude
- Reduced-visual references
- Aircraft mechanical problems
- Pilots' risk management
- Mechanics' risk management

Safety Alert Links

- Educational resources
- Reduce accident rate, promote safety culture
- Mitigate common accident causes and factors

Discussion of Accident Cases

- Completed cases: common causes, factors, and scenarios
- Used as educational tools
 - Not intended to admonish accident pilots
 - Intended to help other pilots learn
- Perspectives of investigators



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